

IN THE CLAIMS

31. (Currently Amended) A connecting element for mechanically connecting constructive elements, said connecting element comprising an elastically deformable tensioning element which applies a holding force in its an elastically deformed expanded state, onto a constructive element that is to be connected, thus generating a ~~nonpositive~~ frictional connection of said one constructive element with said tensioning element and another constructive element,

wherein

said tensioning element has a length in the axial direction and comprises a spring material consisting of a superelastic shape memory alloy elastically ~~deformable~~ expandable in the tensioning element, and said constructive element to be connected is inserted in the axial direction of said tensioning element.

32. (Previously Added) The connecting element according to claim 31, wherein the superelastic shape memory alloy is a nickel-titanium alloy.

33. (Previously Added) The connecting element according to claim 32, wherein the titanium content of the nickel-titanium is between about 49.7 to 50.7 atom %.

34. (Previously Added) The connecting element according to claim 31, wherein the holding force is generated by at least one of bending forces and shear forces during an elastic expansion of the tensioning element.

35. (Currently Amended) The connecting element according to claim 31, wherein the tensioning element is in a ~~tension-induced~~ stress-induced martensitic state to produce the holding force.

36. (Previously Added) The connecting element according to claim 31, wherein the holding force is a contact pressure generated by the elastic expansion of the tensioning element, the holding force being applied to the connected constructive element that is inserted into the tensioning element.

37. (Previously Added) The connecting element according to claim 31, wherein the tensioning element comprises a helicoidal spring which is inserted, in an axial direction, into said constructive element to be connected.

Br
(und) 38. (Previously Added) The connecting element according to claim 37, wherein the helicoidal spring is elastically deformed and pre-tensioned for insertion of said constructive element, said helicoidal spring being partially relaxed for realizing the connection.

39. (Previously Added) The connecting element according to claim 37, wherein the helicoidal spring is tensioned for generating the connection.

40. (Previously Added) The connecting element according to claim 37, wherein the helicoidal spring is a compression spring, which is compressed in an axial direction for inserting the constructive element.

41. (Previously Added) The connecting element according to claim 37, wherein the helicoidal spring is a tension spring, which is stretched in an axial direction for inserting the constructive element.

42. (Previously Added) The connecting element according to claim 40, wherein during the insertion of the constructive element, a coil of the compression spring is turned open to increase the diameter of the coil.

43. (Previously Added) The connecting element according claim 37, wherein the helicoidal spring is a leg spring.

44. (Previously Added) The connecting element according to claim 43, wherein the leg spring has windings with a diameter and at least one leg that is bent up during the insertion of the constructive element in order to increase the diameter of its windings and to pre-tension the leg spring against the direction of its windings.

45. (Previously Added) The connecting element according to claim 44, wherein the leg spring is partially relaxed for generating the connection.

46. (Previously Added) The connecting element according to claim 44, the leg spring has two legs and the legs of the leg spring are bent together in a winding direction of the leg spring, exceeding the relaxed state, for a decrease of the diameter of its windings, to obtain the connection.

47. (Previously Added) The connecting element according to claim 43, wherein the leg spring is relaxed during the insertion of the constructive element to be connected, and the leg spring has two legs that are bent together in a winding direction of the leg spring for a decrease of the diameter of its windings to generate a tension in the leg spring to obtain the connection.

48. (Previously Added) The connecting element according to claim 37, wherein the constructive element to be connected is inserted in the helicoidal spring.

49. (Previously Added) The connecting element according to claim 37, wherein at least two constructive elements to be connected are inserted in the helicoidal spring.

50. (Previously Added) The connecting element according to claim 49, wherein the at least two constructive elements are connected so that one of them contact each other with their face ends and are oriented with their face ends facing each other.

51. (Previously Added) The connecting element according to claim 50, wherein the connected constructive elements are surrounded, in the range of their contact point, by a joint element, which transfers the holding force of the helicoidal spring to the constructive elements to be connected.

52. (Previously Added) The connecting element according to claim 50, wherein the connected constructive elements within the helicoidal spring are arranged parallel to each other in a section.

Sub 53. (Previously Added) The connecting element according to claim 31, wherein the tensioning element comprises a clamping sleeve, into which the constructive element to be connected is inserted in the axial direction, whereby the clamping sleeve is elastically deformed and pre-tensioned by compression in order to insert the constructive element, and the clamping sleeve is partially relaxed for realizing the connection.

54. (Previously Added) The connecting element according to claim 53, wherein the clamping sleeve has a circular cross section in the relaxed state, and an oval cross section in the pre-tensioned and in the partially relaxed state.

55. (Previously Added) The connecting element according to claim 53, wherein the clamping sleeve has an oval cross section in the relaxed state, a deformed state as compared to the relaxed state in the pre-tensioned state, and an oval cross section in the partially relaxed state.

Br (un 2) 56. (Previously Added) The connecting element according to claim 53, wherein the clamping sleeve has one of an oval cross section and a circular cross section in the relaxed state, and in the pre-tensioned state, a cross section that is deformed on three sides in a radial direction of the clamping sleeve, and the clamping sleeve has a cross section arced on three sides in the partially relaxed state.

57. (Currently Amended) The connecting element according to claim 53, wherein at least two or more constructive elements to be connected are inserted in the clamping sleeve, the

at least two ~~or more~~ constructive elements being arranged parallel to each other within a section of the clamping sleeve.

58. (Currently Amended) The connecting element according to claim 53, wherein at least two ~~or more~~ constructive elements to be connected are inserted in the clamping sleeve, the at least two ~~or more~~ constructive elements to be connected at least one of contact each other with their face ends in the clamping sleeve, and are oriented with their face ends facing each other.

59. (Previously Added) The connecting element according to claim 43 wherein the leg spring has two legs and at least one of the legs of the leg spring is inserted in the clamping sleeve.

60. (Previously Added) The connecting element according to claim 59, wherein the two legs of the leg spring are inserted in the clamping sleeve.

61. (Previously Added) The connecting element according to claim 59, wherein another constructive element to be connected is inserted in the clamping sleeve, the another constructive element being arranged within the clamping sleeve besides at least one leg of the leg spring.

62. (Currently Amended) The connecting element according to claim 31, wherein the at least one constructive element to be connected is inserted in the tensioning element, and a section

Applicant: NUSSKERN et al.
Serial No.: 09/743,738

of the at least one constructive element to be connected that is engaged with the tensioning
element, ~~of the constructive element to be connected,~~ is friction-increased.

Br
(undid)